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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,189	08/21/2006	Sander Jurgen Roosendaal	NL 040168	1037
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EXAMINER MOONEY, MICHAEL P				
ART UNIT 2883		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/598,189

Applicant(s)

ROOSEDAAL ET AL.

Examiner

MICHAEL P. MOONEY

Art Unit

2883

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/86)
Paper No(s)/Mail Date 3/21/07, 3/21/07
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date ____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-14 are rejected under 35 U.S.C. 103a as being anticipated by Roosendaal et al. ("Novel High Performance Transflective LCD with a Patterned Retarder", 2003) and further in view of Kubota et al. (20040145691).

Roosendaal et al. teaches a transflective liquid crystal display comprising a plurality of pixels (e.g., Title, Abstract, p. 80 col. 1), a liquid crystal layer (e.g., figs. 2, 4) and an optical layer (e.g., fig. 4 see retarder) comprising a birefringent material ((e.g., fig. 4 see retarder), said pixels being divided into at least one transmissive subpixel (e.g., fig. 4) and at least one reflective subpixel (e.g., fig. 4), and said optical layer (e.g., fig. 4 see retarder) being patterned into domains (e.g., fig. 4 see retarder; p. 80 col. 1 2nd full paragraph & col. 2 the paragraph immediately below figure 6),

Roosendaal et al. does not expressly state "each covering at least part of a reflective subpixel or at least part of a transmissive subpixel, the birefringent material in a first domain covering a reflective subpixel of a pixel having a first birefringence and the birefringent material in a second domain covering a transmissive subpixel of said pixel having a second birefringence, wherein the first and second birefringence are different from each other and adapted independently to improve the viewing angle dependence for the reflective and transmissive subpixels respectively" it would have been obvious".

Kubota et al., however, teaches the principles of "each covering at least part of a reflective subpixel or at least part of a transmissive subpixel, the birefringent material in a first domain covering a reflective subpixel of a pixel having a first birefringence and the birefringent material in a second domain covering a transmissive subpixel of said pixel having a second birefringence, wherein the first and second birefringence are different from each other and adapted independently to improve the viewing angle dependence for the reflective and transmissive subpixels respectively" at Kubota et al. paragraph 0070.

Roosendaal et al. and Kubota et al. are combined by taking the technology of Roosendaal et al. which teaches patterning the retardation values of a retarder on the front-of-screen side of a transmissive LCD and applying it to the differing-the-retardation-film-characteristics-between-transmissive-and-reflective-regions technology of Kubota et al. to obtain the instant invention of a patterning the retardation values of a retarder such that the retardation values differ from reflective to transmissive regions. It would

have been obvious to one of ordinary skill in the art at the time the invention was made to make such a combination for the purpose of optimizing the viewing angle characteristic(s).

Thus claim 1 is rejected.

Kubota et al. teaches wherein the birefringent material of the optical layer in the first domain and in the second domain are made from the same material (paragraph 0070). Thus claim 2 is rejected.

Regarding claims 3-14, each and every element of each of claims 3-14 is rendered as obvious via the above reasons and references and/or conventionally known art-established principles. Thus claims 3-14 are rejected.

Claims 15-22 are rejected under 35 U.S.C. 103a as being anticipated by Roosendaal et al. ("Novel High Performance Transflective LCD with a Patterned Retarder", 2003) and further in view of Kubota et al. (20040145691) and further in view of Nishiguchi et al. (6368760).

Roosendaal et al. teaches a transflective liquid crystal display comprising a plurality of pixels (e.g., Title, Abstract, p. 80 col. 1), a liquid crystal layer (e.g., figs. 2, 4) and an optical layer (e.g., fig. 4 see retarder) comprising a birefringent material ((e.g., fig. 4 see retarder), said pixels being divided into at least one transmissive subpixel (e.g., fig. 4) and at least one reflective subpixel (e.g., fig. 4), and said optical layer (e.g., fig. 4 see retarder) being patterned into domains (e.g., fig. 4 see retarder; p. 80 col. 1 2nd full paragraph & col. 2 the paragraph immediately below figure 6),

Roosendaal et al. does not expressly state "each covering at least part of a reflective subpixel or at least part of a transmissive subpixel, the birefringent material in a first domain covering a reflective subpixel of a pixel having a first birefringence and the birefringent material in a second domain covering a transmissive subpixel of said pixel having a second birefringence, wherein the first and second birefringence are different from each other and adapted independently to improve the viewing angle dependence for the reflective and transmissive subpixels respectively" it would have been obvious".

Kubota et al., however, teaches the principles of "each covering at least part of a reflective subpixel or at least part of a transmissive subpixel, the birefringent material in a first domain covering a reflective subpixel of a pixel having a first birefringence and the birefringent material in a second domain covering a transmissive subpixel of said pixel having a second birefringence, wherein the first and second birefringence are different from each other and adapted independently to improve the viewing angle dependence for the reflective and transmissive subpixels respectively" at Kubota et al. paragraph 0070.

Roosendaal et al. and Kubota et al. are combined by taking the technology of Roosendaal et al. which teaches patterning the retardation values of a retarder on the front-of-screen side of a transmissive LCD and applying it to the differing-the-retardation-film-characteristics-between-transmissive-and-reflective-regions technology of Kubota et al. to obtain the instant invention of a patterning the retardation values of a retarder such that the retardation values differ from reflective to transmissive regions. It would

have been obvious to one of ordinary skill in the art at the time the invention was made to make such a combination for the purpose of optimizing the viewing angle characteristic(s).

Although the above Kubota et al. / Roosendaal et al. combination (herein "Kubota/Roosendaal") the general principle of a method for the manufacture of a patterned optical layer (e.g., see Kubota et al. paragraph 0070), Kubota/Roosendaal does not expressly teach many specifics regarding a method for the manufacture of a patterned optical layer.

Nishiguchi et al. teaches many specifics regarding a method for the manufacture of a patterned optical layer (e.g., col. 4 lines 20-64).

Kubota/Roosendaal and Nishiguchi et al. are combined by taking the technology of Kubota/Roosendaal which teaches the general principle of a method for the manufacture of a patterned optical layer and applying it to the more specific method technology of Nishiguchi et al. to obtain the instant invention of a more specifically stated method for the manufacture of a patterned optical layer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to make such a combination for the purpose of providing more specific/detailed methodology.

Each and every element of each of method claims 16-22 is rendered as obvious under the Kubota/Roosendaal and Nishiguchi combination given above and/or conventionally known art-established principles.

Regarding claim 15, it has been held that to be entitled to weight in method claims, the recited-structure limitations therein must affect the method in a manipulative sense, and not to amount to the mere claiming of a use of a particular structure. Ex parte Pfeiffer, 1962 C.D. 408 (1961). Since the recited-structure limitations in claim 15 do not affect the method in a manipulative sense the newly added recited-structure limitations in claim 15 are not given patentable weight. Therefore claim 15 is rejected for the same reasons given in the rejection of claim 16 above. Thus claim 15 is rejected.

It is nonetheless also stated that each and every element of claim is rendered as obvious under the Kubota/Roosendaal and Nishiguchi combination given above and/or conventionally known art-established principles. Thus claim 15 is rejected.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL P. MOONEY whose telephone number is 571-272-2422. The examiner can normally be reached during weekdays, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.
For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael P. Mooney/
Examiner
Art Unit 2883

/Frank G. Font/
Supervisory Patent Examiner
Art Unit 2883

FGF/mpm
9/19/08